



Food Education Standard #3: Food and the environment are interconnected.

## Getting to the Root of It: Sweet Potatoes, Yams & Other Root Vegetables

**Grade Levels & Subjects:** Grades 9-12 English Language Arts

**Learning + Food Objectives:**

Students will uncover the origins of various root vegetables to gain an understanding of its uses, benefits, and the best ways to consume them.

**Common Core Standards:**

Common Core English Language Arts

Integrating multiple sources and compiling information

CCSS.ELA-LITERACY.RI.9-10.7

Analyze various accounts of a subject told in different mediums (e.g., a person's life story in both print and multimedia), determining which details are emphasized in each account.

CCSS.ELA-LITERACY.SL.9-10.2

Integrate multiple sources of information presented in diverse media or formats (e.g., visually, quantitatively, orally) evaluating the credibility and accuracy of each source.



### MATERIALS NEEDED

- Pilot Light Video: Making Sweet Potato Fries by Grace Chang <https://vimeo.com/591090644>
- Root Vegetables Student Worksheet (Attached below)
- Laptops & headphones
- Chart paper & markers

## CLASSROOM PROCEDURE

### INTRODUCTION (10 minutes)

1. Before this class session, refer to the **Resource List** within the student worksheet to gain background information about root vegetables and to ensure that technology is set up for the [Making Sweet Potato Fries](#) video.
2. Create four posters (big chart paper) labeled: SUMMER, WINTER, FALL/AUTUMN, and SPRING. Student responses to the opening activity will be added to these charts.
  - a. Make sure to either have enough sticky notes or markers for students to write their responses on these charts.
  - b. Alternatively, you could create these tables electronically and write in responses for students.
  - c. Consider preparing one or more samples for the opening activity or instructional lessons.
  - d. Consider posting additional pictures of root vegetables provided in the lesson or have laminated copies available for student groups/at student desks.
3. Help students access the **Student Worksheet (attached below)**.
4. Explain to students that the opening activity will require them to identify fruits and vegetables that they eat/are eaten at different times of the year.
5. Read/review a few of the student responses aloud. Then, engage students in a discussion around this prompt: What commonalities do you notice about the fruits and vegetables grown during the same season?

### INSTRUCTION (90-120 minutes)

1. Explain that today we will learn the origins of root vegetables, their benefits and how to consume them. Direct students' attention to the **Resource List** in the student worksheet.
2. Explain that the class will use some resources together and others will be used with partners and small groups.
3. Tell students to go to the **Root Veggies Article Note Catcher** section of the student worksheet as they pull up the article "[The Pros and Cons of Root Vegetables](#)" (from Harvard). Please note: If teachers can't access this article, you can select another one from the Resource List, like "[Everything You Need to Know About Root Vegetables](#)" by Zoe Denenberg from *Southern Living* magazine.
4. Read the article as a class, having student volunteers read aloud as students make note of key ideas from each section.
5. Put students in groups of 4-6 while you cue up the video "[What are Root Vegetables?](#)" (from KidStir) or another from the resource list.
6. Engage students in a brief discussion as a way of transitioning into the group work. Use 1 or more of these questions:
  - a. Name 3 types of root vegetables that were discussed.
  - b. Which of the vegetables featured in the video have you eaten before? Did you like them? If you didn't why or why not?
  - c. Which root vegetable from the video are you willing to try? Why?
7. Tell them we will be transitioning to the next activity - the **Comparing Root Vegetables T-Chart** using the article "[A Guide to Root Veggies](#)" (Oh My Veggies) by Julie Mueller.

- a. As stated above, if this article is unavailable, you can refer to the Resource List for a 2nd article option OR
  - b. use this opportunity to either: show another video from the Resource List to help students compare 2 different root vegetables in their T-chart OR tell students to use the resources/images to find facts to add to their T-charts (Students would review as many images as they could during the allotted time).
8. Bring the class back together to share out their findings before moving into the group project overview.
  9. Introduce the ***Getting to the Root of It: Unearthing Root Vegetables Group Project*** by reading through the directions and the steps with students - pausing for clarifying questions or concerns. Use this time to explain your grading policies for the project and any logistics for presentation day.
  10. Allow students time to work on their project.
  11. On presentation day, consider randomly ordering the group projects or having students pick numbers from a hat or box.

## CLOSING (10 minutes)

1. Direct students' attention to the **Root Vegetables Exit Slip** section of the student worksheet.
2. Explain that students should use the table to demonstrate what they've learned about root vegetables.
3. Collect student worksheets at the end of class.

## ADDITIONAL RESOURCES

- See Resource Table

## RECIPE FROM VIDEO

Video: [Pilot Light Video: Making Sweet Potato Fries by Grace Chang](#)

Below is the recipe from the video in this lesson. Pilot Light Anywhere lessons are designed to be able to be delivered from a remote setting; however, this recipe can be demoed by the teacher virtually/in person, sent home to families, or used for reference.

### Recipe Name: Sweet Potato Fries

*Serves: 2-3*

#### Ingredients:

- List ingredient 1 (including measurements and any prep like chopping, washing, etc.)
- 2-3 sweet potatoes
- Olive oil (enough to drizzle fries before seasoning)
- Salt and Pepper, if desired

#### Materials:

- Knife
- Cutting board
- Baking sheet

#### Preparation:

1. Heat oven to 400 degrees.
1. Scrub any kind of sweet potato and cut into slices about 1 centimeter thick.
2. Then cut slices in sticks about 1 centimeter side. Try to keep the sticks uniform in thickness.
3. Coat generously with olive oil.
4. Add salt and pepper, if desired
5. Spread out in one layer next to each other on baking sheet.
6. Bake in middle rack for 30 minutes.
7. Turn fries so that different side can be on the baking sheet. Then, turn up to 425 degrees.
8. Bake about 10 minutes longer, checking frequently that they don't burn.
9. When fries are golden brown and crispy, take out of oven and sprinkle with fine salt.
10. Eat warm or room temperature.

The student worksheet below can be printed or copied onto any online learning platform.



## Getting to the Root of It: Unearthing Root Vegetables Student Worksheet

### BELL RINGER: Vegetables by the Seasons Activity

**Directions:** Think about what vegetables you eat throughout the year. With a partner, write down as many as you can in the time allowed.

Summer	Spring
Winter	Fall/Autumn

# Getting to the Root of It: Unearthing Root Vegetables



Resource List		
Articles/Readings	Videos	Images, Tables & Infographic
<a href="#">"How the Sweet Potato Crossed the Pacific Way Before Columbus Did"</a> by Michaelleen Doucleff	<a href="#">Pilot Light Video: "Making Sweet Potato Fries"</a> by Grace Chang	<a href="#">"What is the difference between a yam and a sweet potato?"</a> (chart) (by North Carolina Sweet Potatoes)
<a href="#">"What's the difference between a sweet potato and a yam?"</a> by Alyse Whitney	<a href="#">"Difference between Sweet Potatoes and Yams"</a> (Tech Insider)	<a href="#">"What are Root Vegetables?"</a> by KidStir
<a href="#">"Everything you need to know about Root Vegetables"</a> by Zoe Denenberg in Southern Living magazine	<a href="#">"What's the difference between yams and sweet potatoes?"</a> (Bayer)	<a href="#">"Sweet Potato vs Yam: What's the Difference?"</a> by WebstraurantStore Blog
<a href="#">"What is the difference between a Yam and a Sweet Potato"</a> by North Carolina Sweet Potatoes	<a href="#">"Weird and wonderful root vegetables from around the world"</a> (Eat Happy Project)	<a href="#">"Sweet Potatoes vs. Yams: What's the Difference?"</a> by Mississippi State University Extension
<a href="#">"The Pros and Cons of Root Vegetables"</a> (Harvard)	<a href="#">"Fresh Things: Root Vegetables vs. Tubers"</a> (FreshPoint, Inc)	<a href="#">"15 Most Popular Types of Potatoes"</a> by Only Foods
<a href="#">"13 Healthiest Root Vegetables"</a> (Healthline)	<a href="#">"Sweet Potatoes: History &amp; Nutrition"</a> (watchsuperfoods)	<a href="#">"The Best Potatoes To Use for Each of Your Favorite Tater Recipes"</a> by Lisa Milbrand in <i>Real Simple</i> Magazine
<a href="#">"A Guide to Root Veggies (Oh My Veggies)"</a> by Julie Mueller	<a href="#">"Sweet Potatoes &amp; Yams: What's the Difference?"</a> (Vox)	<a href="#">"Do I Know Who I Yam?"</a> (chart in the article, "5 Special Kinds of Sweet Potatoes, And How to Eat Them" by Kate Bratskeir and Damon Dahlen in HuffPost)

# Getting to the Root of It: Unearthing Root Vegetables



## Root Veggies Article Note-Catcher

**Directions:** After the class reads the assigned article, complete the table below. Try to write **1-2 key details** from each section of the article.

What is a "Root Vegetable" ? (Define)	
What are the Health Benefits of Root Vegetables	
When Do Root Vegetables Grow & When Do You Eat Them?	
How Do You Choose or Harvest Roots Vegetables?	
How Do (Should) You Store Root Vegetables?	
What Are the Types of Root Vegetables?	

## Comparing Root Vegetables T-Chart Activity

**Directions:** Choose at least 2 resources from the *Resource List* to compile facts about 2 root vegetables. Write the title or cut/paste the link to the resources you used.

Resource #1:	
Resource #2:	
Resource #3:	
Root Veggie #1:	Root Veggie #2:

# Getting to the Root of It: Unearthing Root Vegetables



## Getting to the Root of It: Unearthing Root Vegetables Group Project

Directions: With your group, you will create a slide deck that outlines the history, benefits, and uses of at least 2 different root vegetables. Complete both parts of the project. Be prepared to share your video or slides with the class.

1st: Read Part 1 & Part 2 of the project.

2nd: Share all the information you've gathered on the student worksheet so far.

3rd: Decide how your group will divide the tasks.

## Part 1: Getting to the Root of It: Unearthing Root Vegetables Research

Presentation Title Ideas:	
Root Veggie #1:	Root Veggie #2:
Fact 1	Fact 1
Fact 2	Fact 2
Fact 3	Fact 3



# Getting to the Root of It: Unearthing Root Vegetables



Fact 4	Fact 4
<i>Reflect on what you've learned so far using the sentence starters below.</i>	
<i>I used to think...</i>	
<i>Now, I think...</i>	

# Getting to the Root of It: Unearthing Root Vegetables



## Part 2: Getting to the Root of It Planning Template

<p><b>What are root vegetables?</b></p>	<p><b>What is the difference between these 2 root vegetables?</b></p>	<p><b>Where does each root vegetable come from?</b> <i>Name the continents or countries of origin.</i></p>
<p><b>How did people on the continents of origin eat or use these root vegetables in the past?</b></p>	<p><b>How do we eat or use these root vegetables today?</b></p>	<p><b>Include 1 labeled picture of each root vegetable or a short video that shows what your vegetables look like in/out.</b> <i>These can be side by side images or collaged.</i></p>
<p><b>Why should we eat these root vegetables?</b></p>		

# Getting to the Root of It: Unearthing Root Vegetables



## Root Vegetables Exit Activity

**Directions:** Fill-in a graphic organizer that demonstrates your comprehension of **root vegetables**.

<i>Describe or define them:</i>	<i>Write 1 historical fact about them:</i>
<i>List 1 example of a root vegetable:</i>	<i>Draw a picture/diagram of root vegetables:</i>